

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended). A ~~computer-aided~~ computer-aided method ~~for~~ of modelling a three-dimensional object, the method comprising ~~the steps of:~~

providing data defining a frame representing a three-dimensional space for the object, wherein the frame has associated dimension data;

~~displaying~~ rendering an image representing the frame;

selecting a component from a library of components;

selecting a location in the frame to apply the selected component; and

applying the selected component to the frame,

wherein ~~the applying~~ the selected component to the frame ~~step~~ comprises:

accessing the dimension data of the frame;

scaling the dimensions of the component to the frame; and

~~displaying~~ rendering the scaled component in the frame,

wherein the scaled component represents at least part of the object being modelled.

2. (Currently Amended) A method according to claim 1[[,]] wherein the frame comprises constraint data, and the component comprises compliance data,

wherein ~~the~~ applying the selected component to the frame ~~step~~ comprises controlling applying the component to the frame by testing the compliance data to determine whether it conforms to the constraint data ~~and thereby controlling the step of applying the component to the frame.~~

3. (Currently Amended) A method according to claim 2[[,]] wherein the constraint data comprises specification data specifying the allowed components for the ~~said~~ frame, and ~~the~~ controlling further ~~step~~ comprises enabling a rendering display if the compliance data of the selected component indicates that the selected component is allowed for the ~~said~~ frame.

4. (Currently Amended) A method according to claim 2 [[or 3,]] wherein the constraint data comprises specification data specifying at least one allowed orientation of at least one component for the ~~said~~ frame, wherein ~~the~~ applying the selected component to the frame further ~~step~~ comprises disposing the component in a chosen orientation and ~~the~~ controlling ~~step~~ comprises enabling a rendering display if the compliance data of the selected component indicates that the selected component is allowed to be in the chosen orientation for the ~~said~~ frame.

5. (Currently Amended) A method according to claim 2[[, 3 or 4]] wherein the constraint data comprises specification data specifying at least one allowed disposition of at least one component for the ~~said~~ frame, wherein ~~the~~ applying the selected component to the frame further step comprises disposing the component in a chosen disposition and ~~the~~ controlling step comprises enabling an application of the component if the compliance data of the selected component indicates that the selected component is allowed to be in the chosen disposition for the ~~said~~ frame.

6. (Currently Amended) A method of claim 1, further ~~according to any preceding claim~~ comprising:

selecting at least one further component from the library;
selecting a location in the frame to apply the selected component;
applying the selected further component to the frame, wherein the applying step comprises accessing the dimension data of the frame;
scaling the dimensions of the further component to the frame; and
~~displaying~~ rendering the adapted further component in the frame.

7. (Currently Amended) A method of claim 1, ~~according to any preceding claim~~ further comprising modifying at least one of the size, orientation or disposition of the frame, ~~whereby~~ wherein the or each displayed rendered component varies correspondingly.

8. (Currently Amended) A method of claim 1, ~~deriving manufacturing data for a three-dimensional object comprising the method of any preceding claim, and~~ further comprising outputting data derived from ~~said~~ the adapted frame and its selected components, as ~~said~~ manufacturing data.

9. (Currently Amended) A system constructed and arranged for modelling a three-dimensional object, the system comprising a component store for storing a library of components and a user input device operable to define a frame representing a three-dimensional space for the object, to select a component from the library of components and to apply the selected component to the frame;

a display screen for displaying the frame and displaying the selected component; and

a processor for running a stored program operable to derive dimension data for the

frame:₁[[,]]

to access the dimension data of the frame:₁[[,]]

to scale dimension data representing the component to the dimension data of the

frame;₁ and

to provide the scaled data to the display screen ~~whereby~~ wherein the display

screen displays the scaled component in the frame as at least part of the object.

10. (Currently Amended) A system according to claim 9, further comprising a frame store for plural frame types, each ~~said~~ type having associated data representing constraints,

wherein the user input device is operable to select a frame type from ~~said~~ the plural frame types, and each component of ~~said~~ the library of components has associated data representing compliance information, wherein the stored program is operable to test the compliance data of a selected component to determine whether it conforms to the constraint data of the selected frame type and thereby control the adaptation of ~~said~~ the data representing the component to affect the display of the adapted component in the frame.

11. (Currently Amended) A system according to claim 10[[,]] wherein the constraint data comprises specification data specifying ~~at least one of~~ from the group consisting of [[comprising:]] allowed components for the ~~said~~ frame, an allowed orientation of at least one component for the ~~said~~ frame type[[;]]and an allowed disposition of at least one component for the ~~said~~ frame type.

12. (Currently Amended) A system according to claim 11[[,]] wherein the stored program is operable to adapt the component data if the compliance data of the selected component indicates that the selected component is allowed for the ~~said~~ frame type.

13. (Currently Amended) A system according to claim 11 [[or 12,]] wherein the user input device is arranged to allow a user to choose an orientation for the selected component, and the stored program is operable to adapt the component data to represent the chosen orientation to

thereby enable display, if the compliance data of the selected component indicates that the selected component is allowed to be in the chosen orientation for the ~~saïd~~ frame type.

14. (Currently Amended) A system according to claim 11[[, 12 or 13,]] wherein the user input device is arranged to allow a user to choose a disposition for the selected component, and the stored program is operable to adapt the component data of the selected component to represent the chosen disposition of the component to thereby enable display if the compliance data of the selected component indicates that the selected component is allowed to be in the chosen disposition for the ~~saïd~~ frame type.

15. (Currently Amended) A system of claim 9 [[according to any one of claims 9-14,]] wherein the user input device is operable to allow a user to modify at least one of the size, orientation and disposition of the frame, and the stored program is operable to correspondingly adapt the component data for the or each component displayed in the frame whereby the object displayed varies.

16. (Currently Amended) ~~A method according to any of claims 1-8 or a~~ The system of claim 9 wherein the system is configured to model ~~according to any of claims 9-15, specially adapted for modelling roofs.~~

17. (Currently Amended) ~~A method according to any of claims 1-8 or a~~ The system of claim 9 wherein the system is configured to model ~~according to any of claims 9-15, specially adapted for modelling vehicle interiors.~~

18. (Currently Amended) ~~A method according to any of claims 1-8 or a~~ The system of claim 9 wherein the system is configured to model ~~according to any of claims 9-15, specially adapted for modelling aircraft interiors.~~

19. (Currently Amended) ~~A method according to any of claims 1-8 or a~~ The system of claim 9 wherein the system is configured to model ~~according to any of claims 9-15, specially adapted for retail interiors, the retail interiors include such as shelves and racking.~~

20. (Currently Amended) ~~A method according to any of claims 1-8 or a~~ The system of claim 9 wherein the system is configured to model ~~according to any of claims 9-15, specially adapted for furniture.~~

21. (Currently Amended) ~~A method according to any of claims 1-8 or a~~ The system of claim 9 wherein the system is configured to model ~~according to any of claims 9-15, specially adapted for lighting and/or electrical installation.~~

22. (Currently Amended) ~~A method according to any of claims 1-8 or a~~ The system of claim 9 wherein the system is configured to model ~~according to any of claims 9-15, specially adapted for buildings.~~

23. (Currently Amended) ~~A method according to any of claims 1-8 or a~~ The system of claim 9 wherein the system is configured to model landscapes ~~according to any of claims 9-15, specially adapted for gardens or parks.~~

24. (Cancelled)

25. (Currently Amended) A ~~computer-aided~~ computer-aided method of modelling a three-dimensional object, the method comprising: ~~the steps of~~

providing a library of components[[:]], providing comprises:

selecting a component from the library;

applying the selected component to the frame;

wherein the applying step comprises:

accessing compliance data associated with the component;

accessing constraint data associated with an object on which the component is to

be positioned; and[[:]]

testing the compliance data to determine whether it conforms to the constraint data and thereby determining whether or not to apply the selected component to the object.

Claims 26 to 49 (Cancelled)

50. (New) The method of claim 1 wherein the method is for modelling roofs.

51. (New) The method of claim 1 wherein the method is for modelling vehicle interiors.

52. (New) The method of claim 1 wherein the method is for modelling aircraft interiors.

53. (New) The method of claim 1 wherein the method is for modelling retail interiors, the retail interiors include such shelves and racking.

54. (New) The method of claim 1 wherein the method is for modelling furniture.

55. (New) The method of claim 1 wherein the method is for modelling electrical installation.

56. (New) The method of claim 1 wherein the method is for modelling buildings.

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57. (New) The method of claim 1 wherein the method is for modeling landscapes.